

Exaerete lucida Erichs. 1848 ist = *Euglossa frontalis* Guér. 1845 (*Chrysantheda frontalis* Sm.), muss also heissen: *Exaerete frontalis* Guér.

Exaerete aurata Erichs. 1848 ist = *Euglossa smaragdina* Guér. 1845 (*Chrysantheda smaragdina* Sm.), muss also heissen: *Exaerete smaragdina* Guér.

Die übrigen Species dieses Genus heissen also: *Exaerete dentata* L., *nitida* Perty, *subcornuta* Rom. und *trochanterica* Friese.

Descriptions of New Genera and Species of Hymenoptera from India.

By P. C a m e r o n.

(Continued.)

The colouration is metallic blue, marked with white; the head is obliquely narrowed behind the eyes; the occiput is margined; the gastrocoeli and the base of the 2nd segment are stoutly striated; the apical (7th) segment is large and bluntly pointed; the ventral keel extends to the 6th segment; the eyes are large and parallel.

The relationship of this genus is clearly with *Lareiga*; the differences between the two may be expressed thus:

— Arcola not much longer than broad; its sides roundly curved; two distinct lateral areae; the apical much longer than the basal; the recurrent nervure without a nervelet. — *Lareiga*.

— Arcolet twice longer than broad, its sides straight; two indistinct lateral areae, of almost equal size; the recurrent nervure with a long nervelet. — *Odontojoppa*.

O. metallica n. sp. ♂ *Nigra, abdomine coeruleo, albobilineato; tibiis basique tarsorum late albis; alis fuscis, stigmatate nervisque fuscis.* — Long.: 16 mm.

H a b. Khasia (Coll. Rothney).

Antennae fuscous, paler before the middle. The face, clypeus, labrum, middle of mandibles, the inner orbits and the outer on the lowerside, yellow. Face and clypeus uniformly punctured and thickly covered with short white pubescence; the clypeus foveate at the sides and not separated from the face. Thorax shining, very sparsely and minutely punctured and thickly covered with short fuscous pubescence. Scutellum shining, smooth and covered with long fuscous hair. The areola is smooth, except for a longitudinal keel in the middle

at the apex; the base depressed, rough; it is longer than broad and is transverse at the apex; the posterior median smooth, at the most aciculated in the middle; its sides with some short, transverse keels; the posterior outer areae have a few stout, irregular keels on the outside of varying length; the outer basal areae have some keels on the outside; the spiracular area is stoutly transversely striated beyond the spiracles. The pro- and mesopleurae are shining and covered with shallow punctures; the pre-striated in the middle at the apex; the metapleurae are sparsely punctured and of a more bluish tint than the meso- or propleurae. The 4 anterior tarsi, the base of the tibiae broadly and the tarsi, testaceous; the femora fuscous, the tarsi are annulated with fuscous; the hinder coxae, trochanters and femora dark blue; the tibiae blackish, broadly testaceous at the base; the tarsi are testaceous, annulated with black. Wings fuscous-hyaline, the stigma and nervures testaceous, the areolet narrowed at the top, being there not the length of the space bounded by the recurrent and the transverse cubital nervures. Abdomen shining, bright blue, the petiole darker; its apex and the apex of the 2nd segment more broadly at the sides, but more narrowly in the middle, yellowish-white; the gastrocoeli stoutly longitudinally striated, except at the apex which is smooth and brownish.

9. *Gurfyia*, gen. nov.

Scutellum flat; its sides with elevated stout keels to near the apex. Median segment with a wide deep depression at the base; the areola wider than long, its base rounded, fully half the width of the apex, which is almost transverse; the keel at its base is not much raised. Apex of clypeus transverse. Labrum hidden. Mandibles with two large teeth, the upper being the larger. Legs of moderate length; the front tarsi spined on all the joints. Areolet 5-angled, narrowed on the top; the transverse basal nervure is interstitial. The petiole becomes gradually widened from the base to the apex, the post-petiole not being clearly separated. Gastrocoeli shallow. There are 7 abdominal segments; the last is bluntly pointed and is as long as the 6th; the ventral keel is distinct on the 2nd and 3rd segments, broader and less distinct on the 4th.

The face and clypeus are flat; the temples are broad; the occiput is incised; the antennae are not serrated towards the apex in the male; the apex of the hinder femora does not reach to the apex of the 3rd segment; there is no stump of a nervure on the disco-cubital nor on the recurrent nervure.

The strongly keeled scutellum of this genus reminds one

of *Eurylabis*; but the form of the abdominal petiole is different from what it is in that genus. The blunt apex of the abdomen and the ventral keel being only on the 2nd and 3rd segments would place the genus in the *Amblypygi*. The females I donot know.

G. albipilosa sp. nov. ♂ *Nigra*, abdomine coeruleo, facie clypeoque flavis; tibiiis posticis rufis; alis hyalinis, nervis et stigmate nigris. — Long.: 10 mm.

H a b. Simla.

Antennae stout, tapering towards the apex; as long as the body; black, the scape yellow below. Head thickly covered with white pubescence, wich is longest on the front and vertex; black; the face, clypeus and base of the mandibles yellow; the vertex sparsely, the front more closely and strongly punctured; the labrum is fringed with long pale fulvous hair. Mandibles black, yellow at the base. Palpi pale yellow. Thorax black, the edge of the pronotum yellow behind; there are 2 small yellow marks on the apex of the scutellum. Mesonotum punctured, but not very closely; the scutellum is more sparsely punctured. Postscutellum minutely punctured. The basal areae of the median segment are closely and rather strongly punctured; the areola is widely furrowed down the sides; its centre is stoutly longitudinally striated; it is open behind. The posterior median area is closely and somewhat strongly transversely striated and is roundly dilated into the areola above; the lateral areae are more stoutly transversely striated. Plenrae closely punctured; the meta- more strongly than the rest; the meso- less strongly below than above. The 4 anterior femora, tibiae and tarsi are yellow in front; the front coxae and trochanters are yellow below, the middle yellow in the centre; the hinder tibiae are rufous, their calcaria of a paler rufous colour. Abdomen dark blue, with a purplish tinge; the petiole is darker in colour. Petiole striated; its sides keeled; the post-petiole is distinctly separated, raised in the centre, irregularly punctured and longitudinally striated; the apex in the middle is smooth and shining. Gastrocoeli elongate, wide, striated at the base.

10. Amblyjoppa.

1. *A. rufipes*, sp. nov. ♀ *Nigra*, abdomine ferrugineo, apice nigro; capite thoraceque late flavo-macularis; pedibus rufis, coxis trochanteribusque anterioribus flavis, alis fusco-violaceis. — Long.: 22—23 mm. (Coll. Rothney).

Antennae stout, black, the 8th to 15th joints white below and thickly covered with a fine pile; the scape punctured.

Head black, the face, clypeus, labrum, inner eye orbits to the end of the eyes on the top, and the outer orbits broadly from below the middle, black. Face and clypeus strongly, but not closely punctured and covered with short, white pubescence; the middle of the face and vertex irregularly shagreened. Thorax black; the edge of the pronotum from near the base, two, slightly oblique, short marks on the middle of the mesonotum, the scutellum, except at the apex, 2 marks on the apical slope of the median segments, the tubercles, the under half of the mesopleurae, widely, triangularly incised above; and a conical mark on the middle of the metapleurae, yellow. Mesonotum alutaceous at the sides, the middle distinctly punctured; the scutellum more strongly punctured than it. Median segment opaque, closely rugose; the areola is twice longer than broad, the apical half distinctly wider than the basal; its apical keel obsolete; its base and sides foveate; the posterior median area is coarsely and deeply reticulated; the lateral areae in the middle are closely, irregularly transversely striated; the posterior median becomes gradually wider towards the apex; the spiracular beyond the spiracles is coarsely striated. Mesopleurae, except in the middle, closely punctured; the upper part of the apical furrow is striated. Metapleurae more closely and strongly punctured; the base bears some striae and there is a close row of striations above the lower keel. Legs ferruginous; the 4 anterior coxae and trochanters pale yellow; the hinder trochanters slightly infuscated. Wings uniformly fuscous-violaceous; the stigma and nervures blackish; the areolet at the top is as wide as the space bounded by the recurrent and the 2nd transverse cubital nervures; the recurrent is received shortly, but distinctly, beyond the middle. Abdomen ferruginous, the apical 4 segments black; the petiole is strongly keeled on the sides above and closely transversely striated; the post-petiole, in the middle, closely, irregularly longitudinally reticulated; its sides sparsely punctured; its ventral surface is closely and strongly transversely striated. Gastrocoeli smooth; the space between them sharply, longitudinally striated.

2. *A. fuscipennis*, sp. nov. ♂ ♀ *Nigra*, capite thoraceque albomaculatis; pedibus rufis, tarsis fere fulco-flavis; alis fuscis. — Long. 21–22 mm.

Hab. Khasia Hills, Assam. (Coll. Rothney).

Antennae black: the 8th to 18th joints white beneath; the scape closely punctured, thickly covered with short fuscous hair, the flagellum with a fuscous down. Face and clypeus white, strongly punctured; a narrow black line runs down from the antennae to the middle of the face, where it becomes

joined to one more than twice its breadth, which extends to the base of the clypeus; there is a narrower band continuous with it in the centre of the clypeus. Mandibles black, broadly yellow in the middle at the base; palpi lemon-yellow. Front roughly almost transversely striated; vertex smooth; there is a furrow between the ocelli. The inner orbits are sharply margined, are bordered with yellow, narrowly below, more broadly above; the upper band is slightly narrowed in the middle. Thorax black; the prothorax broadly in front, the edge of the pronotum broadly; the tubercles (which are large), two short lines on the base of the mesonotum in the centre, the sides of the scutellum broadly, an oblique mark on the lower part of the mesopleurae, before the keel, a large irregular one on the middle of the lower part, extending on to the sternum, lemon-yellow. Mesonotum strongly punctured, thickly covered with short fuscous hair; the parapsidal furrows are deep, wide, obscurely striated in front: the hinder edge from the tegulae to the sides of the scutellum stoutly and sharply keeled; inside of this is a crenulated furrow. Scutellum covered with long fuscous hair; the black central part strongly, the sides sparsely punctured; the post-scutellum is very smooth; its sides at the base depressed, bordered on the outside by a stout keel. The depression at the base of the median segment is wide, deep and smooth, as is also the base in the centre; the rest of the segment rugose, running into reticulations and striations; the areola is broadly rounded at the top; it is as broad as long and is roundly curved inwardly; the posterior median area strongly transversely striated; the posterior intermedian areae coarsely reticulated; the rest of the segment rugose, running into reticulations and striations. Propleurae punctured; the top behind the middle with a stout keel; the hollow in the middle above smooth; on the lower part broadly stoutly obliquely striolated, the striations becoming stouter towards the apex. Mesopleurae strongly punctured, the apex depressed, crenulated. Metapleurae coarsely punctured and with a deep, wide crenulated furrow down the middle. The spiracular area is closely and strongly punctured at the base. The base of the wings has a more yellowish tint than the apex: the areolet is almost triangular. The 4 anterior coxae and trochanters are yellow; the anterior coxae are black at the base behind; the anterior femora and tibiae broadly, the hinder coxae broadly behind and the trochanters black; the tarsi infuscated, thickly covered with fulvous hair. Abdomen black, shining and with a faint violaceous tinge.

A common species. It differs from the other species of the genus in the abdomen not being banded with red.

11. *Lachmetha* gen. nov.

♀. Abdomen with 8 dorsal segments. Antennae thickened and dilated beyond the middle. Mandibles with a long apical and a much shorter triangular lower tooth, which is bent inwardly and downwards. Apex of clypeus transverse; the labrum projecting, its apex rounded and separated from the sides. Scutellum flat, its sides keeled at the base. Post-scutellum widely and deeply depressed laterally at the base. Median segment with a gradually rounded slope; it is completely areolated; its base is depressed in the middle; the areola is of an elongated horse-shoe-shape and is open behind; its spiracles are curved, linear. Areolet narrowed at the top, 5-angled; the transverse basal nervure is interstitial; there is the stump of a nervure on the disco-cubital. Tarsi spinose. The abdomen is short, not much longer than the head and thorax united; the penultimate segment is large, longer than the 6th; the last is small and is depressed above; the sides of the segment project at the apices and are distinctly separated from the following. The ventral keel is on the 2nd and 3rd and less distinctly on the 4th; the ovipositor projects and has broad sheaths; the dorsal segments are almost smooth. The antennae in the ♂ are long and serrate; the punctation on the abdomen is close and distinct.

The dilated antennae in ♀, serrate in ♂, the median segment depressed at the base, and the unenclosed areola refer this genus to the *Joppini*. In *Ashmead's* arrangement it would come in near *Protichneumon* (cf. Bull. U. S. Nat. Mus. XXIII, 15).

L. spinitarsis sp. nov. ♂ ♀ *Nigra, flavomaculata; pleuris apiceque metanoti late flavo-maculatis; pedibus fulvis, coxis tarsisque flavis; coxis posticis subtus, apice femorum apiceque tibiæ posticarum nigris; alis hyalinis stigmate nervisque nigris.* — Long. 9–10 mm.

H a b. Khasia Hills (Coll. Rothney).

♀ Antennae black; the scape and joints 10th–19th clear white beneath; the joints beyond the middle flattened and dilated; the apical attenuated. Head pale yellow; the vertex and front broadly in the centre, the occiput and the outside of the outer eye orbits, black; smooth and shining; the face in the middle obscurely punctured and very sparsely covered with short, white pubescence. Mandibles pallid yellow; their teeth black. Thorax black, shining; the edge of the pronotum, two lines in the middle of the mesonotum, the scutellar keels, the sides of the scutellum — broadly behind —

the post-scutellum, the sides of the apical slope of the metanotum, the lower edge of the propleurae, the tubercles, the mesopleurae from shortly below the middle, the parts below the hind wings, an irregular spot immediately behind the spiracles and a large oblique mark immediately above the hinder coxae, yellow. Mesonotum closely, but not very strongly punctured; the scutellum is only very sparsely punctured. Median segment, except in the middle, at the base — the areola and its neighbourhood — closely and distinctly punctured; the posterior median area closely, transversely striated; the areola is very smooth and shining. Propleurae almost impunctate: the meso- closely punctured, except on the top behind: the hinder furrow is crenulated: the meta- has the apical half sparsely punctured. Legs fulvous; the 4 front coxae and trochanters pallid yellow; the hinder coxae black, broadly yellow in the middle above and narrowly at the apex below; the apical third of the hinder femora, the base of the hinder tibiae narrowly, their apex more broadly and the extreme base of the metatarsus, black: the rest of the hinder tarsi white. Abdomen black; the apices of all the segments pale yellow, the yellow bands narrowed in the middle; on the 5th segment it is only yellow on the sides: on the 6th it is very narrow: and the 7th and 8th are entirely pale yellow; the post-petiole is closely striated in the middle: the middle of the 2nd at the base is much more strongly striated. Gastrocœli large, deep, striated round the sides at the base: the ventral fold and the sides and apices of the 2nd and 3rd segments are pale yellow.

III. Phaeogenini.

12. Pagarenes gen. nov.

Metathoracic spiracles small, oval, almost circular. Median segment depressed in the middle at the base, areolated; the areola large, rounded and clearly separated behind. Head hardly developed behind the eyes which reach the outer edge; the occiput is transverse. Antennae longer than the body, dilated and compressed beyond the middle and ringed with white. Mandibles with a small blunt subapical tooth, not projecting or separated behind, and a large apical one. Clypeus roundly convex; its apex transverse, with the sides rounded; behind it is separated from the face by a shallow, indistinct depression; the foveae are large and deep. Malar space small. Scutellum convex, its sides stoutly keeled to the apex. Areolet 4-angled, narrowed above; the transverse basal nervure is interstitial; there is no nervure on the disco-cubital,

Legs stout; the tarsi spinose; the hinder coxae large, projecting backwards at the base. Abdomen with 7 dorsal segments; the apex is not very sharply pointed; the ventral keel is on segments 2, 3 and 4. Gastrocoeli large, deep.

Belongs to the *Phaeogenini*; and, in *Ashmead's* arrangement, comes nearest to *Ischnus*, which is readily known from it by the head being largely developed behind the eyes.

P. erythropus sp. nov. ♂ *Niger, flavo-maculatus; apice metanoti late flavo; pedibus rufis, coxis trochanteribusque anterioribus flavis; coxis et trochanteribus posterioribus apiceque femorum posticorum nigris; alis hyalinis, stigmatibus testaceo, nervis fuscis.* — Long.: 7 mm.

H a b. Sikhim.

Antennae longer than the body, the scape and joints 10—14 beneath white; the basal joints of the flagellum bare, the apical covered with a microscopic down. Head black, the face, upper half of the clypeus, the labrum, the inner eye orbits, the lower half of the outer, the mandibles, except at the apex, and the palpi, pallid yellow. Face and clypeus closely and distinctly punctured and covered with white pubescence; on the middle of the face is a bellshaped black mark, narrow at the top and becoming gradually wider to the clypeal foveae; the vertex is minutely, and not very distinctly, punctured. The long palpi are lemon-yellow. Thorax black; the upper and lower edges of the prothorax, the scutellum, post-scutellum, the apical slope of the median segment, the yellow extending laterally to the end of the spiracular areas, two spots under the hinder wings, a mark immediately above the middle coxae, broadest on the top, and a small, somewhat similar, mark over the hinder coxae, lemon-yellow. Mesonotum closely, uniformly and rather strongly punctured; the scutellum is not so closely punctured and is covered with longish fuscous hair; the post-scutellum is impunctate. Median segment closely rugosely punctured; the basal depression is smooth and shining; the areola is nearly twice longer than wide; and it is stoutly irregularly reticulated; the apical slope of the segment is also irregularly reticulated. Pleurae closely and distinctly punctured; the lower part of the propleurae is smooth and shining; the apex is crenulated. Wings clear hyaline; the stigma testaceous; the nervures black. Legs rufous; the 4 anterior coxae and trochanters yellow; the hinder coxae black, broadly yellow above; the trochanters black, the basal joint yellowish above; the apex of the femora black. Abdomen black; the apices of the basal 3 segments broadly and the apical 2 entirely yellow; the basal 3 ventral segments are broadly banded with pale yellow. (To be continued.)